



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Attorney Docket No. 15981US01

In the Application of:

Jason Hillyard

U.S. Serial No.: 09/924,306

Filed: August 6, 2001

For: SYSTEM AND METHOD FOR
ESTABLISHING A CONNECTION
BETWEEN WIRELESS DEVICES

Examiner: Md S. Elahee

Group Art Unit: 2645

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APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is a timely filed appeal brief with a petition for a two-month extension of time. A notice of appeal was received by the United States Patent and Trademark Office on September 22, 2005. A petition for a two-month extension of time is enclosed, thereby extending the deadline for filing an appeal brief to Monday, January 23, 2006 since January 22, 2006 falls on a Sunday.

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REAL PARTY IN INTEREST

Broadcom Corporation, a corporation organized under the laws of the state of California and having a place of business at 16215 Alton Parkway, Irvine, California 92618-3616, is a real party in interest. Broadcom Corporation acquired Widcomm, Inc., a California corporation and surviving corporation of a merger of Widcomm, Inc. and WC Acquisition Corp., a California corporation and wholly owned subsidiary of Broadcom Corporation. WC Acquisition Corp. is listed as the assignee as set forth in the Assignment filed and recorded at Reel 015108, Frame 0950.

RELATED APPEALS AND INTERFERENCES

There are currently no appeals pending regarding related applications.

STATUS OF THE CLAIMS

Claims 1-23 are pending in the present application. Pending claims 1-9, 13-17 and 20-22 have been rejected under 35 U.S.C. § 102(e) and pending claims 10-12, 18, 19 and 23 have been rejected under 35 U.S.C. § 103(a) and are the subject of this appeal.

STATUS OF THE AMENDMENTS

There are no amendments pending in the present application.

SUMMARY OF THE INVENTION

Some embodiments according to some aspects of the present invention may provide a method that establishes a connection between wireless devices. The method may include, for example, one or more of the following: performing an inquiry; performing an inquiry scan for a random duration following said inquiry; and establishing the connection after receiving a device address in response to said inquiry.

Some embodiments according to some aspects of the present invention may provide a method that establishes a connection between wireless devices. The method may include, for example, one or more of the following: performing inquiries at random

intervals; performing an inquiry scan and a page scan when not performing said inquiries; upon receiving a first device address in response to one of said inquiries, paging said first device address to establish the connection; and upon receiving an inquiring device inquiry during said inquiry scan, responding with a second device address, and if said second device address is paged during said page scan, establishing the connection.

Some embodiments according to some aspects of the present invention may provide a method that establishes a connection between a first wireless device and a second wireless device. The method may include, for example, one or more of the following: at the first wireless device, performing first inquiries at random intervals and performing first inquiry scans when not performing said first inquiries; at the second wireless device, performing second inquiries at random intervals and performing second inquiry scans when not performing said second inquiries; and establishing the connection after the first wireless device receiving one of said second inquiries during one of said first inquiry scans.

Some embodiments according to some aspects of the present invention may provide a wireless device that communicates via a wireless link. The wireless device may include, for example, means for performing inquiries at random intervals; means for performing inquiry scans and page scans when not performing said inquiries; and means for paging a responding device to establish the wireless link upon receiving a first device address in response to one of said inquiries, wherein said first device address identifies said responding device.

ISSUES FOR REVIEW

Whether claims 1-9, 13-17 and 20-22 are unpatentable under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2001/0019956 A1 to Masahiro Tada (“Tada”).

Whether claims 10-12, 18 and 19 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Tada in view of United States Patent Publication No. 2002/1047027 A1 to Jack A. Alford, Jr. et al. (“Alford”) and further in view of United States Patent Publication No. 2003/0036350 A1 to Annika Jonsson et al. (“Jonsson”).

Whether claim 23 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Tada in view of Alford.

GROUPING OF CLAIMS

Claims 1-23 do not stand or fall together.

Group I. Claims 1-6 stand or fall together.

Group II. Claims 7-9, 13-17 and 20-22 stand or fall together.

Group III. Claims 10-12, 18 and 19 stand or fall together.

Group IV. Claim 23 stands or falls alone.

ARGUMENT

I. Group I: Claims 1-6

Claims 1-6 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Tada. Appellant respectfully traverses the rejection as set forth below and requests that the Board reverse the rejection.

To anticipate claim 1, Tada must describe each and every element as set for in claim 1. Tada does not describe each and every element as set forth in claim 1. For example, claim 1 recites, in part, “performing an inquiry scan for a random duration following said inquiry”.

The Office Action Made Final of April 22, 2005 (“the Office Action Made Final”) alleges that Tada describes each of the elements recited in claim 1 at Paragraphs 0036, 0085, 0088, 0091 and 0093 of Tada. See the Office Action Made Final at page 3.

As a courtesy to the Board, Appellant summarizes, in relevant part, the cited and related portions of Tada. Tada at Paragraph 0085 appears to describe that a user can manually stop transmission by an application and perform Inquiry Scan and Page Scan instead of automatic execution of Inquiry Scan and Page Scan. The user can explicitly output an Inquiry Scan or Page Scan execution instruction. See Tada at Paragraph 0085.

Tada at Paragraph 0088 appears to describe that the user can manually stop transmission as discussed in Paragraph 0085 by pressing a “member join” button of a

user interface window. The instruction performs the periodical execution of Inquiry Scan/Page Scan. See Tada at Paragraph 0088.

If “data communication stop” is selected, then time interval of Inquiry Scan is then set to the minimum value to quickly respond to a terminal search message. See Tada at paragraph 0091. If “terminal search priority” is selected, then the time interval of Inquiry Scan is set to a value X2. See Tada at Paragraph 0091. Tada at Paragraph 0092 states that if “data communication priority” is selected, then the time interval of Inquiry Scan is set to value X1. If “no terminal search” is selected, then the time interval of Inquiry Scan is set to maximum value. See Tada at Paragraph 0092.

Tada at Paragraph 0093 states that the time interval of Inquiry is controlled in accordance with the mode selected by the user. See Tada at Paragraph 0093. The modes selected by the user are “data communication stop”, “terminal search priority”, “data communication priority” and “no terminal search”. See, e.g., Tada at Paragraph 0091.

Thus, Tada describes a user selecting one of four (4) modes with each mode having a corresponding value (i.e., the minimum value, value X2, value X1 or the maximum value, where the minimum value is less than X2 which is less than X1 which is less than the maximum value). The corresponding value is a time interval of Inquiry Scan.

The Office Action Made Final characterizes Tada as describing that “[t]he user manually stops transmission and performs Inquiry scan at his own desire by selecting suitable time interval, therefore, the time interval during which Inquiry scan can be performed is varied or set randomly by the user”. In fact, the time intervals are set between four (4) values which are chosen by the user correspondingly selecting one of four (4) modes. The user does not randomly select modes and thus the user does not randomly select one of the four (4) time intervals. Tada does not describe and would not teach or suggest randomly selecting modes.

Since Tada does not describe and would not teach or suggest randomly selecting modes in view of the allegations by the Examiner, Tada does not describe at least “performing an inquiry scan for a random duration following said inquiry”. For at least the above reasons, Appellant respectfully requests that the Board reverse the rejection of claim 1 and its dependent claims (i.e., claims 2-6).

The issue as to whether Tada describes performing an inquiry scan for a *random* duration is further taken up by the Examiner in the Office Action Made Final by citing, without producing the document at the time, a dictionary definition stating that “random” means “in any order the user desires”. The Office Action Made Final at page 2.

In a Reply After Final Rejection of June 22, 2005 (“the Reply After Final Rejection”), Appellant requested that the Examiner, in an Advisory Action of August 11, 2005 (“the Advisory Action”), produce (for the first time) the page from the dictionary cited by the Examiner in support of “random” meaning “in any order the user desires”. It should be noted that Appellant neither agrees nor disagrees with the definitions provided in the dictionary cited by the Examiner. Furthermore, Appellant neither agrees nor disagrees with the use of possibly extrinsic evidence such as, for example, a dictionary with respect to interpreting claim language.

As the Board can see, the Examiner’s assertion that “random” means “in any order the user desires” is not supported by the dictionary even though the Examiner alleged such a definition as the basis for the rejection as set forth in the Office Action Made Final. See Office Action Made Final at page 2. According to the Examiner’s own dictionary, “random” means “a haphazard course”. In a second definition, “at random” means “without definite aim, direction, rule or method”. In a third definition, random means “lacking a definite plan, purpose, or pattern”. Thus, the Examiner’s allegation that random means “in any order the user desires” finds no basis in the Examiner’s dictionary. Such a definition served as the basis for the rejection as set forth in Office Action Made Final at page 2.

Furthermore, if the Board were to apply the other definitions of random from the Examiner’s dictionary, the Examiner’s interpretation of Tada becomes largely incoherent and illogical. According to the Examiner’s allegation, the user selects, at random, one of the following modes: “data communication stop”, “terminal search priority”, “data communication priority” and “no terminal search”. Appellant respectfully requests the Board to consider whether a user in Tada would be inclined to select modes in a “haphazard course” or “without aim, direction, rule or method” as set forth in the Examiner’s dictionary and, presumably, as alleged by the Examiner. Appellant

respectfully submits that it is unlikely that Tada supports such an interpretation as set forth by the Examiner. The user in Tada would not be inclined to randomly select modes.

Since Tada does not describe and would not teach or suggest randomly selecting modes in view of the allegations by the Examiner, Tada does not describe at least “performing an inquiry scan for a random duration following said inquiry”. For at least the above reasons, Appellant respectfully requests that the Board reverse the rejection of claim 1 and its dependent claims (i.e., claims 2-6).

In the Advisory Action, the Examiner further alleges that Tada specifically teaches that the time interval of Inquiry Scan is variably (equated by the Examiner as randomly) controlled or set by the user (citing Tada at paragraphs 0091-0093). As discussed above, Tada at Paragraph 0093 states that the time interval of Inquiry is controlled in accordance with the mode selected by the user. See Tada at Paragraph 0093. The modes selected by the user are “data communication stop”, “terminal search priority”, “data communication priority” and “no terminal search”. See, e.g., Tada at Paragraph 0091. Thus, Tada describes a user selecting one of four (4) modes with each mode having a corresponding value (i.e., the minimum value, value X2, value X1 or the maximum value, where the minimum value is less than X2 which is less than X1 which is less than the maximum value). The corresponding value is a time interval of Inquiry Scan. Thus, the time interval of Inquiry Scan is dependent upon which of the four modes — “data communication stop”, “terminal search priority”, “data communication priority” and “no terminal search”— the user selects.

The Examiner alleges that “variably controlled in accordance with the mode selected by the user” (Tada at paragraph 0093) means that “it is *inherent* that an inquiry scan is performed for a random duration” (Advisory Action at section 11)(italics added).

Appellant respectfully submits that the inherency doctrine has been misapplied by the Examiner. Appellant respectfully submits that the doctrine of inherency does not apply in this case in which variably controlled does not necessarily mean randomly controlled.

The United States Court of Appeals for the Federal Circuit (“the Federal Circuit”) has stated that

anticipation by inherent disclosure is appropriate only when the reference discloses prior art that must *necessarily* include the unstated limitation

Transclean Corp. V. Bridgewood Services, Inc, 290 F.3d 1364, 1373, 62 U.S.P.Q. 2d 1865 (Fed. Cir. 2002).

The Federal Circuit has also stated that

[i]nherency does not embrace probabilities or possibilities

and that

[i]nherent anticipation requires that the missing descriptive material is “necessarily present,” not merely probably or possibly present, in the prior art.

Trintec Indus., Inc. V. Top-U.S.A. Corp, 295 F.3d 1292, 1297, 63 U.S.P.Q. 2d 1597 (Fed. Cir. 2002).

Appellant respectfully submits that an inquiry scan need not necessarily be performed for a random duration. The Examiner’s use of the inherency doctrine fails on this point alone. Furthermore, even by some of the definitions of “random” or “at random” provided by the Examiner through the cited dictionary, it is respectfully submitted that the user in Tada would not select a mode at random wherein random might mean, according to the Examiner’s dictionary, in a “haphazard course” or “without aim, direction, rule or method”. Furthermore, it is possible (i.e., not necessarily so) that the user can select modes in a periodic or non-random manner. Accordingly, the Examiner’s use of the inherency doctrine is entirely inappropriate and to the extent that the Examiner’s rejection is based on the inherency doctrine, the Board should reverse the rejection.

For at least the above reasons, Tada does not describe at least “performing an inquiry scan for a random duration following said inquiry”.

It is therefore respectfully requested that the Board reverse the rejection with respect to claim 1 and its dependent claims (i.e., claims 2-6).

II. Group II: Claims 7-9, 13-17 and 20-22

Claims 7-9, 13-17 and 20-22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Tada. Appellant respectfully traverses the rejection as set forth below and requests that the Board reverse the rejection.

Claim 7 recites, in part, “performing inquiries at random intervals”. Claim 13 recites, in part, “performing first inquiries at random intervals” and “performing second inquiries at random intervals”. Claim 20 recites, in part, “means for performing inquiries at random intervals”.

In each case, the Office Action Made Final and the Advisory Action alleged similar arguments as were made with respect to claim 1.

Accordingly, Appellant makes the same or similar arguments, where appropriate, as were made with respect to claim 1. Appellant emphasizes that Tada does not describe or teach inquiries at random intervals.

Generally, “[i]nquiry is periodically performed to acquire information about terminals within the communication zone in advance”. Tada at Paragraph 0077. Tada does state that, under a particular circumstance, “the current mode is changed to a mode of stopping periodical transmission of Inquiry and issuing Inquiry only when an application or user requests the establishment of a new radio link in order to prevent communication performance from deteriorating due to Inquiry”.

However, Appellant respectfully submits that “issuing Inquiry only when an application or user requests ... to prevent communication performance from deteriorate due to Inquiry” does not describe “performing inquiries at *random* intervals” (italics added).

Appellant respectfully submits that Tada is silent as to “performing inquiries at *random* intervals” (italics added). Instead, the Examiner has alleged as stated above with respect to claim 1, without document support as stated above, that “[t]he user manually performs Inquiries at his own desire” and that “performing ... at his own desire” must necessarily be at random intervals. The Examiner has also provided a dictionary that provides definitions for “random” and “at random” which differ from the Examiner’s allegation. Accordingly, the arguments made above with respect to claim 1 are incorporated herein in their entirety and made herein with respect to “random” intervals.

Since there is no support in Tada for any user, at his own desire, performing inquiries at random intervals, the anticipation rejection cannot be maintained with respect to independent claims 7, 13 and 20 and their rejected dependent claims.

It is therefore respectfully requested that the Board reverse the rejection of claims 7-9, 13-17 and 20-22.

III. Group III: Claims 7-9, 13-17 and 20-22

Claims 10-12, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious over Tada in view of Alford and further in view of Jonsson. Appellant respectfully traverses the rejection as set forth below and requests that the Board reverse the rejection.

Claims 10-12 depend from claim 7 and claims 18 and 19 depend from claim 13. Accordingly, the arguments made above with respect to claims 7 and 13 are made here with respect to dependent claims 10-12, 18 and 19. Appellant respectfully submits that the teaching deficiencies of Tada are not made up by the teachings of Alford or Jonsson. In particular, neither Alford or Jonsson teaches “performing inquiries at random intervals” as set forth in claim 7; or “performing first inquiries at random intervals” and “performing second inquiries at random intervals” as set forth in claim 13.

For at least the above reasons, it is respectfully requested that the Board reverse the rejection of claims 10-12, 18 and 19.

In addition, the definitions of the cited dictionary provided by the Examiner and used as the basis for the rejection, teach away from the teachings of Tada. It is respectfully submitted that the user in Tada would not select a mode at random wherein random might mean, for example, according to the Examiner’s dictionary, in a “haphazard course” or “without aim, direction, rule or method”.

For at least the above reasons, it is respectfully requested that the Board reverse the rejection of claims 10-12, 18 and 19.

IV. Group IV: Claim 23

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being obvious over Tada in view of Alford. Appellant respectfully traverses the rejection as set forth below and requests that the Board reverse the rejection.

Claim 23 depends from claim 20. Accordingly, the arguments made above with respect to claim 20 are made here with respect to claim 23. Appellant respectfully submits that the teaching deficiencies of Tada are not made up by the teachings of Alford or Jonsson. In particular, Alford does not teach “means for performing inquiries at random intervals” as set forth in claim 20.

For at least the above reasons, it is respectfully requested that the Board reverse the rejection of claim 23.

In addition, the definitions of the cited dictionary provided by the Examiner and used as the basis for the rejection, teach away from the teachings of Tada. It is respectfully submitted that the user in Tada would not select a mode at random wherein random might mean, according to the Examiner’s dictionary, in a “haphazard course” or “without aim, direction, rule or method”.

For at least the above reasons, it is respectfully requested that the Board reverse the rejection of claim 23.

V. Conclusion

For the foregoing reasons, claims 1-23 are distinguishable over the prior art of record. Reversal of the Examiner's rejection and issuance of a patent on the application are therefore requested.

The Commissioner is hereby authorized to charge additional fees or credit overpayments to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Dated: January 23, 2006

Respectfully submitted,



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APPENDIX

The following claims are involved in this appeal:

1. A method for establishing a connection between wireless devices, comprising:

- (a) performing an inquiry;
- (b) performing an inquiry scan for a random duration following said inquiry;

and

(c) establishing the connection after receiving a device address in response to said inquiry.

2. The method of claim 1, wherein said inquiry has a fixed duration.

3. The method of claim 1, wherein said operation (c) comprises paging said device address.

4. The method of claim 1, wherein said method further comprises (d) establishing the connection after receiving an inquiring device inquiry during said inquiry scan.

5. The method of claim 4, wherein said method further comprises performing a page scan while performing said inquiry scan.

6. The method of claim 5, wherein said operation (d) comprises responding with a second device address upon receiving said inquiring device inquiry, and if said second device address is paged during said page scan, establishing the connection.

7. A method for establishing a connection between wireless devices, comprising:

- (a) performing inquiries at random intervals;

(b) performing an inquiry scan and a page scan when not performing said inquiries;

(c) upon receiving a first device address in response to one of said inquiries, paging said first device address to establish the connection; and

(d) upon receiving an inquiring device inquiry during said inquiry scan, responding with a second device address, and if said second device address is paged during said page scan, establishing the connection.

8. The method of claim 7, wherein said inquiries have a fixed duration.

9. The method of claim 7, wherein the wireless devices are not assigned client roles or server roles prior to establishing the connection.

10. The method of claim 7, further comprising storing configuration information upon the connection being established, and re-establishing the connection using said configuration information upon the connection being lost.

11. The method of claim 10, wherein said re-establishing is attempted a number of attempts until the connection is re-established, and if the connection is not re-established, returning to operation (a).

12. The method of claim 10, wherein said configuration information comprises role and device address information.

13. A method for establishing a connection between a first wireless device and a second wireless device, comprising:

(a) at the first wireless device, performing first inquiries at random intervals and performing first inquiry scans when not performing said first inquiries;

(b) at the second wireless device, performing second inquiries at random intervals and performing second inquiry scans when not performing said second inquiries; and

(c) establishing the connection after the first wireless device receiving one of said second inquiries during one of said first inquiry scans.

14. The method of claim 13, wherein said first inquiries have a first fixed duration, and said second inquiries have a second fixed duration

15. The method of claim 13, wherein the first wireless device and the second wireless device are not assigned client roles or server roles prior to establishing the connection.

16. The method of claim 13, wherein said method further comprises:

(a1) at the first wireless device, performing first page scans while performing said first inquiry scans; and

(b1) at the second wireless device, performing second page scans while performing said second inquiry scans.

17. The method of claim 16, wherein said establishing comprises:

(c1) sending a first device address to the second wireless device, wherein said first device address corresponds to the first wireless device; and

(c2) paging the first wireless device using said first device address, thereby establishing the connection.

18. The method of claim 13, further comprising (d) assigning a server role to the first wireless device and a client role to the second wireless device, and if the connection is lost, re-establishing the connection using said client role and said server role.

19. The method of claim 18, wherein said re-establishing comprises paging the first wireless device, wherein said paging is repeated a first number of attempts until the connection is re-established, and if the connection is not re-established, returning to operation (a).

20. A wireless device that communicates via a wireless link, said wireless device comprising:

means for performing inquiries at random intervals;

means for performing inquiry scans and page scans when not performing said inquiries; and

means for paging a responding device to establish the wireless link upon receiving a first device address in response to one of said inquiries, wherein said first device address identifies said responding device.

21. The wireless device of claim 20, further comprising:

means for providing a second device address upon receiving a discovering device inquiry during one of said inquiry scans, wherein said second device address identifies the wireless device; and

means for establishing the wireless link upon receiving a page to said second device address.

22. The wireless device of claim 20, wherein said inquiries have a fixed duration.

23. The wireless device of claim 20, further comprising a memory, wherein configuration information is stored in said memory upon establishing the wireless link.